

**Notice of Allowability**

Application No.

10/789,697

Applicant(s)

PEPPER, GERALD

Examiner

John H. Le

Art Unit

2863

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Applicant's amendment filed 08/08/2005 & 09/16/2005.
2. ☒ The allowed claim(s) is/are 1-8 and 10-22.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All b) ☐ Some\* c) ☐ None of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
    - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
  - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),  
Paper No./Mail Date 08/08/2005
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_.

***Response to Amendment***

1. Applicant's amendment filed 09/16/2005 and 08/08/2005 have been entered and carefully considered.

Claims 1, 4, 7, 8, 10, 11, 16, 17, and 19-22 have been amended.

Claim 9 has been cancelled.

The Abstract has been amended.

***Examiner's Amendment***

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

The applicant has been amended as follows:

Claim 20, in the end of claim, delete “;”, insert --,--.

***Reasons for Allowance***

2. Claims 1-8, 10-22 are allowed.
3. The following is a statement of reasons for the indication of allowable subject matter:

Please see the previous office action and applicant's argument filed on 09/16/2005 and 08/08/2005.

Regarding claim 1, none of the prior art of record teaches or suggests the combination of a system comprising a deskew card to prepare deskew information , according to a test pattern and independent of the lane cards according to the physical

layer communications standard, the deskew card to evaluate incoming deskew information included with received incoming data independent of the lane cards- according to the physical layer communications standard wherein the system generates arbitrarily long test data on the data lane according to the test pattern. It is these limitations as they are claimed in the combination with other limitations of claim, which have not been found, taught or suggested in the prior art of record, that make these claims allowable over the prior art.

Regarding claim 8, none of the prior art of record teaches or suggests the combination of a testing system to test whether a system under test conforms to a physical layer communications standard, the testing system comprising: a deskew card to prepare outgoing deskew information for outgoing data independent of the lane cards according to the test pattern and according to the physical layer communications standard, and to evaluate incoming deskew information included with received incoming data independent of the lane cards according to the physical layer communications standard wherein the system generates arbitrarily long test data on the data lanes according to the test pattern. It is these limitations as they are claimed in the combination with other limitations of claim, which have not been found, taught or suggested in the prior art of record, that make these claims allowable over the prior art.

Regarding claim 16, none of the prior art of record teaches or suggests the combination of a method for transmitting test data according to a physical layer communications standard comprising: selecting a pattern seed based on the selecting and the lane counter; generating a current generated test pattern based on the pattern

seed and the selected test seed; transmitting the current generated test pattern; generating a next generated test pattern based on the selected test pattern and the current generated pattern; and storing the next generated test pattern. It is these limitations as they are claimed in the combination with other limitations of claim, which have not been found, taught or suggested in the prior art of record, that make these claims allowable over the prior art.

Regarding claim 19, none of the prior art of record teaches or suggests the combination of a method for receiving test data according to a physical layer communications standard comprising: selecting a test pattern based on a value of the lane counter; evaluating whether to use the incoming data or a stored next generated pattern to generate an anticipated pattern; generating an anticipated pattern based on the evaluating and the test pattern; comparing the generated anticipated pattern with the incoming data; flagging an error condition if the generated anticipated pattern and the incoming data do match based on the comparing. It is these limitations as they are claimed in the combination with other limitations of claim, which have not been found, taught or suggested in the prior art of record, that make these claims allowable over the prior art.

Regarding claim 21, none of the prior art of record teaches or suggests the combination of a transmitter circuit to transmit deskew data conforming to a physical layer communications standard, the transmitter circuit comprising: a lane counter coupled to a pattern select unit a pattern seed unit, and a current pattern unit, the lane counter to provide a lane value from 0 to 16 and to increment the lane value from 0 to

Art Unit: 2863

16; the pattern select unit to select a pattern based on the lane value and to provide a selected pattern to the pattern seed unit, a current pattern generation unit and a next pattern generation unit; the current pattern unit to store a next generated pattern generated by the next pattern generation unit as a stored current pattern, and to receive the lane value from the lane counter; the pattern seed unit to provide a pattern seed to a first mux based on the selected pattern and the lane value; the first mux to select between the pattern seed received from the pattern seed unit and the stored current pattern received from the current pattern unit, and to provide input to the current pattern generation unit; the current pattern unit to generate a current generated pattern based on input received from the first mux and the selected pattern; the next pattern generation unit to generate the next generated pattern based on the current generated pattern and the selected pattern; and a second mux to select between transmitting a header or the current generated pattern based on the lane value. It is these limitations as they are claimed in the combination with other limitations of claim, which have not been found, taught or suggested in the prior art of record, that make these claims allowable over the prior art.

Regarding claim 22, none of the prior art of record teaches or suggests the combination of a receiver circuit to receive deskew data transmitted according to a physical layer communications standard, the receiver circuit comprising: a receive line to receive incoming data, the receive line coupled to a frame synchronization unit and a compare unit; the frame synchronization unit to identify a data location in the incoming data, and to provide the data location to a lane counter and a pattern state machine; a

Art Unit: 2863

lane counter to provide a lane value and to increment the lane value from 0 to 16, the lane counter to provide the lane value to a pattern select unit, a current pattern unit, and the pattern state machine; the pattern select unit to select a selected pattern based on the lane value and to provide the selected pattern to an anticipated pattern generation unit and a next pattern generation unit; the current pattern unit to receive a next generated pattern from the next pattern generation unit and store the next generated pattern as a current pattern, the current pattern unit to the current pattern to a mux based on the lane value; the mux to select between the current pattern and the incoming data based on a output from the pattern state machine; and the compare unit to evaluate whether the incoming data corresponds to the anticipate generated pattern, and to provide a result and the incoming data to the pattern state machine. It is these limitations as they are claimed in the combination with other limitations of claim, which have not been found, taught or suggested in the prior art of record, that make these claims allowable over the prior art.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

#### ***Contact Information***

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John H. Le whose telephone number is 571 272 2275. The examiner can normally be reached on 9:00 - 5:30.

Art Unit: 2863

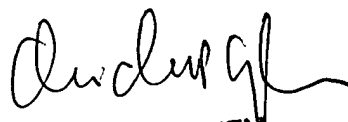
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John E. Barlow can be reached on 571 272 2269. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

John H. Le

Patent Examiner-Group 2863

September 24, 2005

  
MICHAEL NGHIEM  
PRIMARY EXAMINER

9/26/05